

ABSTRACT

Musculoskeletal Disorders (MSDs) defined as a disorder of muscles, nerves, and tendons compounded by the unergonomic working posture. Workers in Circulator Loom unit of PT. Kerta Rajasa Raya are at risk for experiencing MSDs because of their unergonomic works such as standing for too long, twisting their backs, bending, and putting their hands above shoulder height. The purpose of this research was to learn more about MSDs including its related factors in Circulator Loom unit of PT. Kerja Rajasa Raya workers.

Used a descriptive method, this research described a population of all workers in Circulator Loom unit of PT. Kerta Rajasa Raya which amounted to 47 people. In this regard, the research variables were MSDs' disorders, working postures, age, sex, Body Mass Index, working period, physical fitness, and Diabetes Mellitus. Data was obtained by interview, height and weight measurements, physical fitness measurement, also several working postures observations.

The final result shows that 91.5% respondents are experiencing MSDs with 53.5% are in average stage of severity. Using REBA method to calculate the ergonomic risk level, it can be conclude that 23.4% of the respondents have lower risk of experiencing MSDs, 68.1% in average level and 8.5% of respondents are having higher risk of experiencing MSDs. Among all of those factors above, the working posture is the most influential factor causing MSDs with the total point of correlation coefficient 0.629.

Based on the results of the research, it can be concluded that the working posture is an influential factor related to MSDs, in addition, working period, age, sex, Body Mass Index, physical fitness, and Diabetes Mellitus are existed as supporting factors. Concerning with this problem, companies are supposed to do technical control or redesign the works to reduce the risk of MSDs.

Keywords: ergonomic, MSDs, working posture

ABSTRAK

Musculoskeletal Disorders (MSDs) merupakan suatu keluhan berupa rasa nyeri yang terjadi pada otot, syaraf, dan tendon yang disebabkan dan diperparah oleh postur kerja yang tidak ergonomis. Pekerja di unit *Circulator Loom* PT. Kerta Rajasa Raya berisiko untuk mengalami MSDs karena melakukan pekerjaan dengan tidak ergonomis seperti berdiri terlalu lama, memuntirkan punggung, membungkuk, dan posisi tangan berada di atas ketinggian bahu. Penelitian ini bertujuan untuk mempelajari MSDs dan faktor yang berhubungan pada pekerja di unit *Circulator Loom* PT. Kerta Rajasa Raya.

Penelitian ini merupakan penelitian deskriptif dengan populasi seluruh pekerja di unit *Circulator Loom* PT. Kerta Rajasa Raya yang berjumlah 47 orang.. Variabel yang akan diteliti adalah keluhan MSDs, postur kerja, umur, jenis kelamin, Indeks Massa Tubuh, masa kerja, kebugaran jasmani, dan penyakit *diabetes mellitus*. Sumber data diperoleh dari wawancara, pengukuran berat dan tinggi badan, pengukuran kebugaran jasmani, serta observasi terkait postur kerja.

Hasil yang diperoleh sebanyak 91,5 % responden mengalami keluhan MSDs. Dari total 43 responden yang mengalami MSDs, sebanyak 53,5 % mengalami keparahan sedang. Tingkat risiko ergonomi dihitung menggunakan metode REBA didapatkan sebanyak 23,4 % memiliki risiko rendah, 68,1 % memiliki risiko sedang dan 8,5 % memiliki risiko tinggi. Faktor postur kerja memiliki nilai *correlation coefficient* 0,629, yang berarti terdapat hubungan kuat antara postur kerja dengan MSDs.

Berdasarkan hasil penelitian, dapat disimpulkan bahwa postur kerja merupakan faktor yang berperan penting dalam timbulnya MSDs, selain itu terdapat faktor lain yang mendukung seperti masa kerja, umur, jenis kelamin, Indeks Massa Tubuh, dan penyakit Diabetes Mellitus. Perusahaan hendaknya melakukan pengendalian teknik atau mendesain ulang pekerjaan untuk mengurangi risiko MSDs.

Kata kunci: ergonomi, MSDs, postur kerja